# Physics of models

- Considering the uncertainty in humidity informations, do we understand the role of moisture and the moisture sources and balance in the region?
- Should more emphasis be placed on land surface interactions (e.g. rainforest)?
- Do we understand what the main deficiencies are in the global and regional models? SST forced rainfall variability is too low, why?



### **Validation**

- Pay attention to fact that predictability changes over time when validating models (multi-model approach?), thus emphasis on dynamics
- Similarly, rainfall distributing function of SSTs patterns which could change in future climates, hence need to concentrate on validation of processes, and modelling of SST
- process-based investigation on the right track.
- Should climate models be validated in a seasonal forecasting mode?
- Skill of climate/seas FC models should be shown in Forecast Demonstration Projects to secure support

## **End-User impacts**

- End-User impact research crucial, since can demonstrate Flag-ship projects
- Climate change research critical for food and water resources and health impacts.
- End-user impact research should be strongly encouraged
- However, the data for validation efforts can be even harder to come by



#### DATA!

- Data access (both meteorological and end-user impact) is problematic
  - Expensive
  - Politically sensitive
- Possible solutions
  - Project interactions?
  - Coordination by African centres such as SADC, ACMAD or ICPAC?
- A solution is required...



## Comments from Sharon Nicholson

- Prohibitive cost of rainfall data
- Collaborations unhelpful if African research centre required to purchase data
- remote sensed data not the complete solution since still required ground-based data for callibration
- reanalysis products unreliable due to sparsity of measurements (Satellite?)
- New or Erroneous dynamical features over Africa in analyses? (AEJ in SH, coastal jet in SE atlantic, split westerly jet)
- Year of observations (high density Pilot and radiosondes) to validate the analyses?